CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO.92-124

WASTE DISCHARGE REQUIREMENTS FOR:

UNIVERSITY OF CALIFORNIA
ELKUS 4-H RANCH
HALF MOON BAY, SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, finds that:

1. University of California, hereinafter referred to as the discharger, owns and operates the Elkus 4-H Ranch, an agricultural extension facility. The ranch consists of a staff residence and office, mobile home, barn, and temporary tent facilities to house overnight ranch guests. Currently, the facility is served by two onsite septic systems. The existing systems are old and were installed under former septic codes and both systems do not meet current minimum stream setback requirements. The ranch is located approximately three miles southeast of Half Moon Bay (figure 1). The Elkus 4-H Ranch property consists of two parcels covering 627 acres adjacent to Purisima Creek (figure 2). In addition to 4-H training, education and Agricultural Extension programs, the ranch is also used for grazing of sheep and horses.

2. The discharger plans to construct a ranch center, cabins and restroom facilities. The new ranch center will provide approximately 4,400 square feet of space. The discharger has received a coastal development permit from the California Coastal Commission. The permit was issued based on a maximum use of 70 visitors per day. The discharger has proposed a new onsite wastewater disposal system to replace the existing septic systems. The proposed onsite wastewater disposal system consist of standard septic tanks, a pump station to pump septic tank effluent to a subsurface recirculating pea gravel filter, a chlorine contact chamber, one half-acre holding pond,and a spray disposal field.

4. The discharger has identified at least one property owner down stream from the 4H Ranch that relies on the Purisima Creek for drinking water supply. In order to eliminate potential effluent runoff into Purisima Creek, the spray disposal field maintains a minimum set back of 100 feet from Purisima Creek. In addition, a surface containment berm

protected with geotextile fabrics will be installed to prevent possible wastewater runoff from the spray disposal area (figure 3) Monitoring programs will be adopted by the discharger to closely monitor the water quality in the Purisima Creek to insure that the Creek will not be impacted by the 4h Ranch wastewater treatment, storage and disposal operations.

5. During the dry weather months, drawdown of the pond would be accomplished by spray disposal of treated effluent to a controlled grazing/pasture area. Forage of the pasture would not be directly or indirectly used for human consumption. During the wet weather months, the effluent will be disinfected and stored in the holding pond.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) in December 1991. State Water Resources Control Board approval is pending.

7. The wastewater reclamation requirements are in conformance with the statewide reclamation criteria established by the State Department of Health.

8. The beneficial uses of Purisima Creek and contiguous water bodies are:

   . Municipal and Domestic Supply

9. This Order serves as Waste Discharge Requirements, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

10. The discharger and interested agencies and persons have been notified of Board's intent to adopt requirements for the discharge and have been provided with the opportunity for a public hearing and opportunity to submit their written views and recommendations.

11. The Board at a public meeting heard and considered all comments pertaining to this reuse.

IT IS HEREBY ORDERED, that the University of California, in order to meeting the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with following:

A. Discharge Prohibitions

1. There shall be no bypass or overflow of sewage from the collection, treatment, holding pond, and spray disposal area to waters of the State. The spray disposal area is defined as the land inside of the surface containment berm (see figure 3).

2. No wastewater shall be applied to the spray disposal area during periods of rainfall, when rainfall is anticipated, for 48 hours after a rainfall, or when soils in the spray disposal area are saturated to the point where wastewater runoff is likely.

3. The average dry weather flow shall not exceed 3,000 gpd. The average shall be determined over three consecutive dry weather months each year.

4. Wastewater shall not be allowed to escape from the discharger's spray disposal area into waters of the State via surface flow, resurfacing after percolation, or airborne spray.

5. Wastewater ponding which could provide a breeding area for mosquitoes is prohibited.

6. The collection, treatment and disposal of wastewater shall not impair ground water quality.

B. Specifications

1. The treatment, distribution or reuse of wastewater shall not create a nuisance as defined in Section 13050(M) of the California Water Code.

2. Treated wastewater to be used for spray irrigation of the pasture area shall meet the following quality limits at all times:

a.	5-day BOD	40.0 mg/l, maximum
b.	Total coliform bacteria	23 MPN/100 ml (7-sample median) 240 MPN/100 ml (single-sample maximum)

3. Treated wastewater in the holding pond shall not exceed the following limits at any place within one foot of the pond surface in any grab sample:

a.	Dissolved oxygen	2.0 mg/l (minimum)
b.	Dissolved sulfide	0.1 mg/l (maximum)
c.	pH	6.0 unit (minimum) 9.0 unit (maximum)

4. A minimum freeboard of two feet shall be maintained in the holding pond at all times.

5. Wastewater disposal shall be limited to the spray disposal area.

6. The holding pond shall have sufficient capacity to contain all wastewater generated from the facility during the wettest rainfall period expected once in twenty-five years.

7. All above ground equipment, including pumps, piping and valves, etc., which may at any time contain waste shall be adequately and clearly identified with warning signs and user shall make all necessary provisions, to inform affected persons that the treated wastewater is sewage and is unfit for human consumption.

8. The public shall be effectively excluded from the treatment plant. The holding pond and spray disposal areas shall be clearly identified with posted notices warning the public of the presence of treated wastewater.

C. Provisions

1. The discharger shall comply with all sections of the Order immediately upon adoption.

2. The treatment, disposal, storage, or processing of sewage sludge shall not cause waste material to be in any position where it is, or can be, carried from the sludge treatment,disposal, storage, or processing site and be deposited in waters of the State.

3. The discharger shall permit the Regional Board or its authorized representative:

   a. Entry upon premises in which the wastewater treatment facilities and the effluent source are located or in which any required records are kept.

   b. Access to copy any records required to be kept under terms and conditions of this Order.

   c. Inspection of any monitoring equipment or method required by this Order.

   d. Sampling of any discharge.

4. An Operation and Maintenance Manual is required to be maintained by the Discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by October 1st of each year. Documentation of operator input and review shall accompany each annual update.

5. The discharger shall develop a contingency plan to assure continuous operation of the treatment and disposal facilities as required by Board Resolution 74-10. This involves, but is not limited to, identification of system components which are needed frequently or may fail imminently and making provisions for their prompt replacement when necessary.

6. The discharger shall employ a treatment plant operator with at least a Grade I certification to supervise operation of the wastewater treatment plant, or demonstrate to the Executive Officer's satisfaction that an equivalent level of supervision is being maintained.

7. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

8. The Board will review this Order periodically and may revise the requirements when necessary.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on October 21, 1992.

STEVEN R. RITCHIE
Executive Officer

Attachment:
Self-Monitoring Program
Site Maps

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

ELKUS 4H RANCH

WASTE TREATMENT FACILITY

SAN MATEO COUNTY

NPDES NO. CA

ORDER NO. 92-124

CONSIST OF

PART A

AND

PART B

I. GENERAL

Reporting responsibilities of waste dischargers are specified in Section 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No #73-16.

The principal purposes of a monitoring program by a waste discharger, also referred to as self-monitoring program, are:

1. To document compliance with waste discharge requirements and prohibitions established by this Regional Board.

2. To facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge.

II. DESCRIPTION OF SAMPLING

NOTE: A sketch showing the locations of the stations described below shall accompany each monthly report, and the Annual report for each calendar year.

1. Influent

Influent to the chlorination system shall be sampled as described below:

Parameter	Sample Collection
BOD	Quarterly
TSS	Quarterly

2. Effluent

Effluent from the chlorination system shall be sampled prior to disposal or storage for the following parameters:

A.

Parameter	Sample Collection May to October	Sample Collection November to April
Flow (1)	Daily	Weekly
Settleable matter	Weekly	Monthly
BOD	Monthly	Monthly
TSS	Monthly	Monthly
Total Coliform	Weekly	Monthly
Chlorine Residual	Daily	Monthly

(1) Both daily flow and monthly average (in gallons per day) shall be reported.

3. Purisima Creek Monitoring

Between May to October of each year, the discharger shall perform monthly sampling to test for total coliform in the Purisima Creek. At a minimum, one sample shall be taken from up stream and one sample shall be taken from down stream locations of the 4H Ranch spray disposal area.

4. Monitoring Well (figure 3)

A. Monitoring well A (located hydraulically down gradient from surface containment berm): The discharger shall sample the well and test for total coliform semi-annually. Tests shall be performed in early April and October each year.

B. Monitoring well B (located hydraulically up gradient from holding pond): The discharger shall record well water level monthly between October and April each year.

5. Observations

A. The discharger shall make weekly observations of the wastewater collection, treatment, and storage systems, recording system operation and any odor (strength, source, and area affected).

B. The discharger shall make weekly observations of the spray disposal area and surface containment berm. The discharger shall record any evidence of surface and subsurface runoff from the spray disposal area.

III. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Violations of Requirements

A report shall be made of any accidental spill of waste. Accidental spills shall be reported to this Regional Board by telephone immediately after it occurs (510) 464-1255. The subsequent written report shall be filed within five (5) days and shall contain information relative to:

A. Nature of waste or pollutant,
B. Quantity involved,
C. Cause of spilling,
D. Estimated size of affected area,
E. Nature of effects
F. Corrective measures that have been taken, or planned, and a schedule of these activities.

2. Self-Monitoring Reports

Written reports shall be filed regularly for each month and submitted by the fifteenth day of the following month. The reports shall be comprised of the following:

A. Letter of Transmittal

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as plant operation modifications. Monitoring reports and the letter transmitting reports shall be signed by a responsible official. The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

B. Data Results

All results observed or analyzed in II, including dates and times of sampling and/or observations.

C. Map

A map shall accompany the report showing sampling and observation station locations.

I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 92-124.

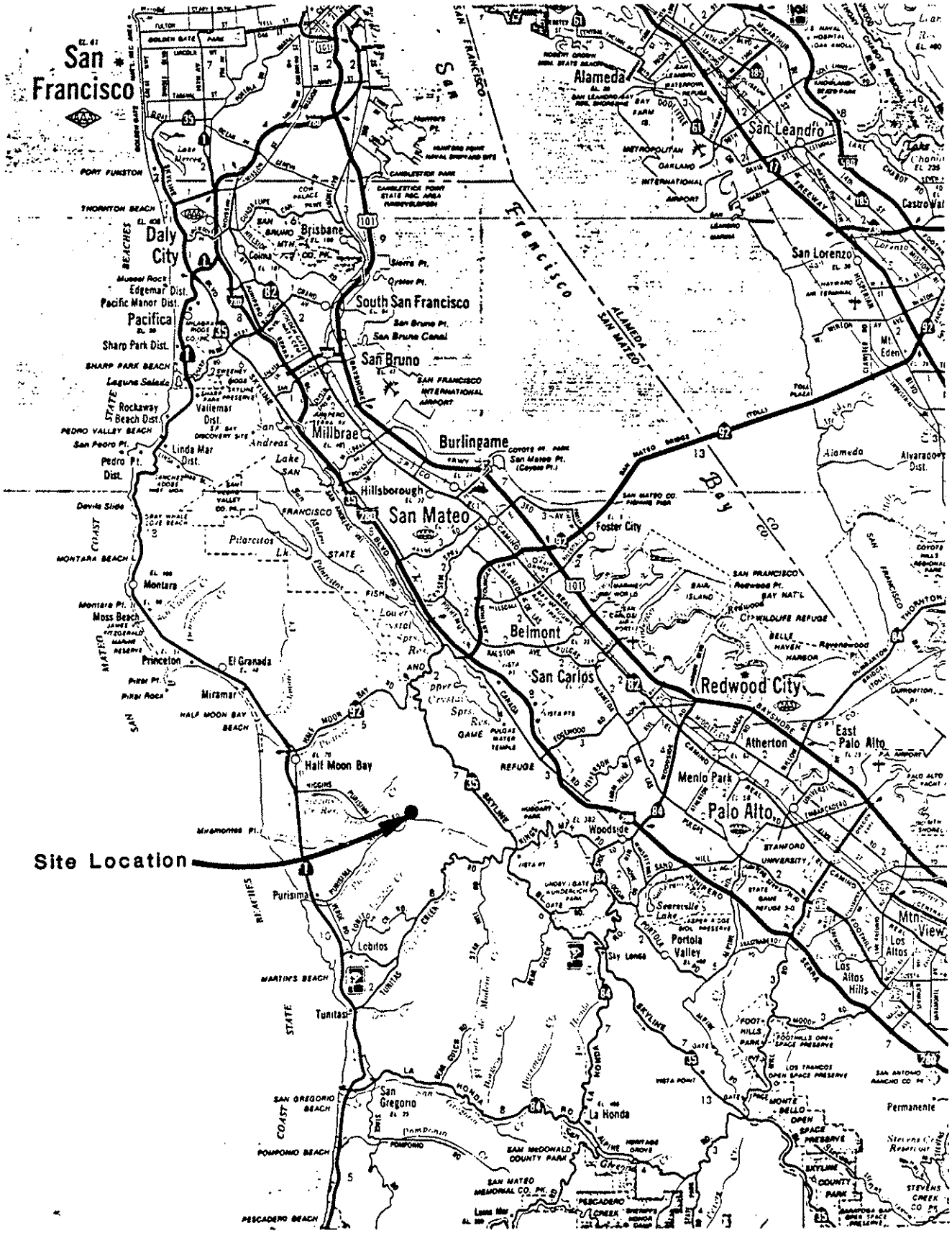
2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

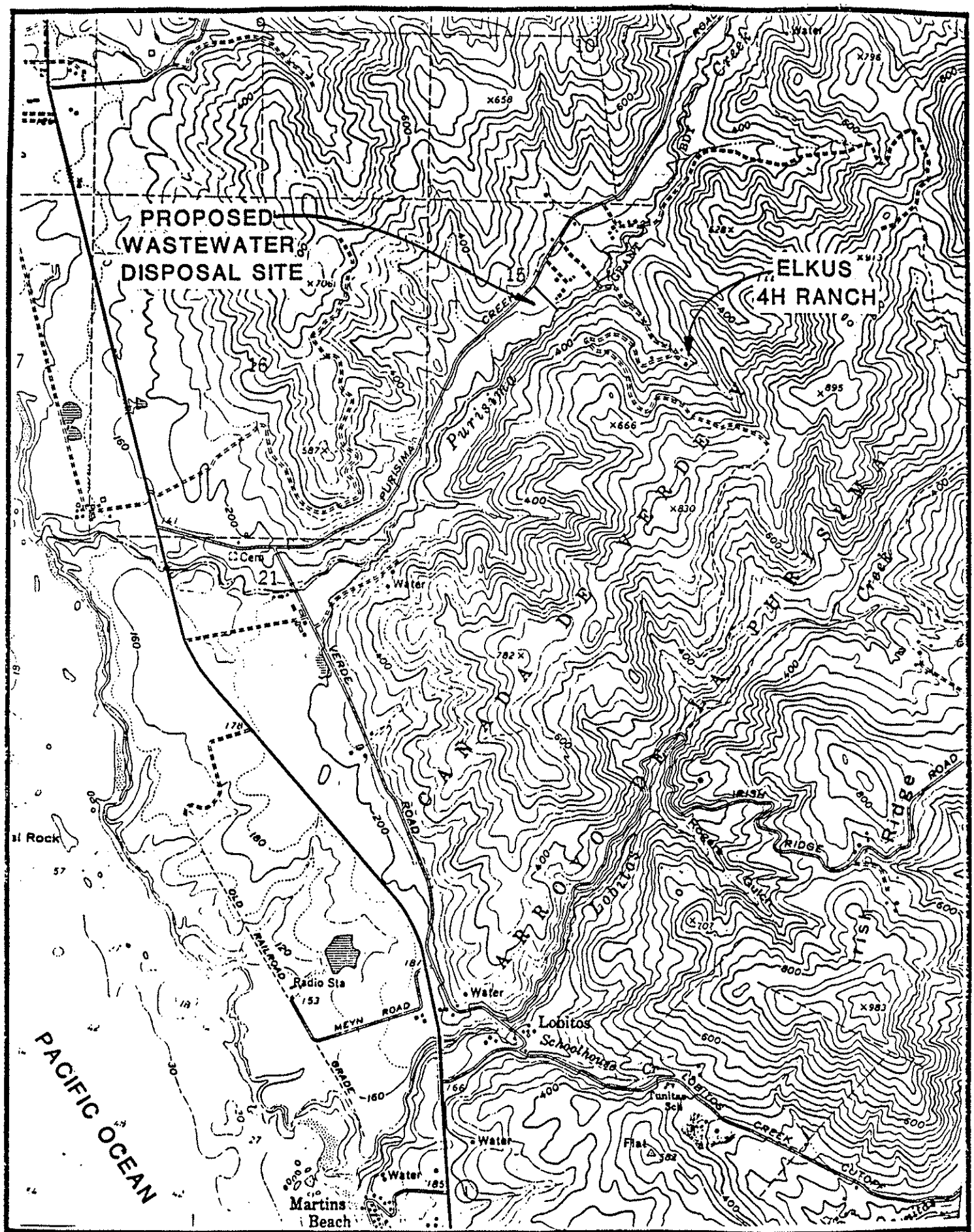
Steven R. Ritchie
Executive Officer

Date: 10/21/92

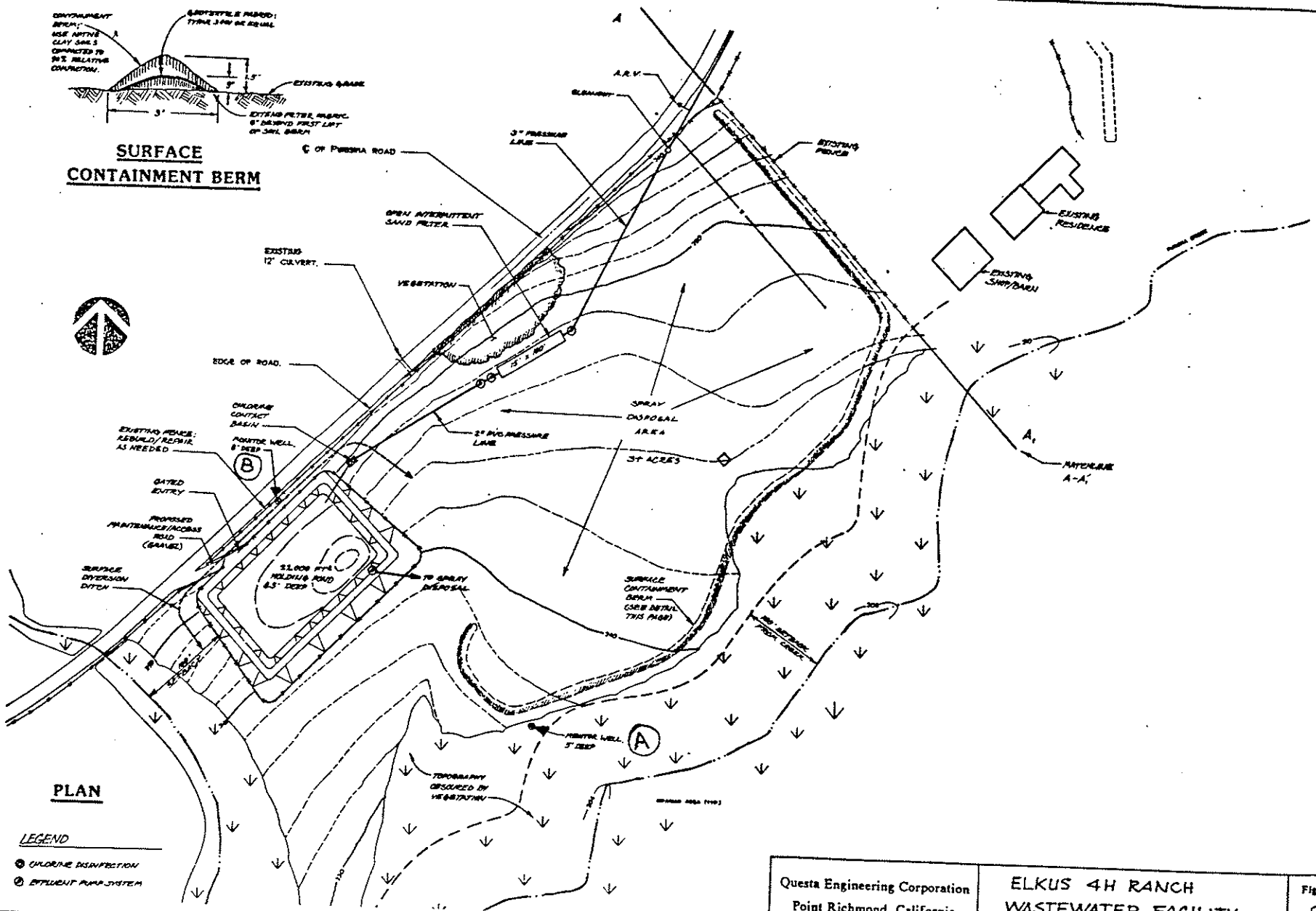
Attachment:
Standard Provisions

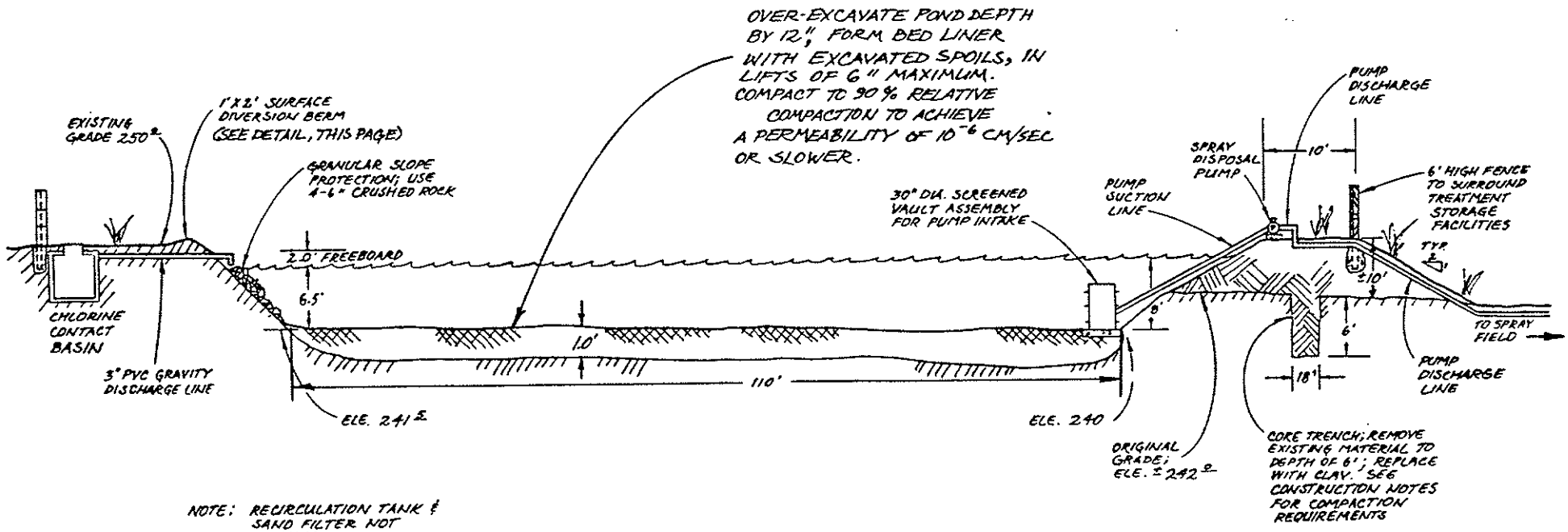


Questa Engineering Corp. Point Richmond, Calif.	ELKUS 4-H RANCH INITIAL STUDY Regional Map	Fig. 1



Questa Engineering Corp. Point Richmond, Calif.	LOCATION MAP	Fig. 2


SURFACE
CONTAINMENT BERM
PLAN
LEGEND
CHLORINE DISINFECTION
EFFLUENT PUMP SYSTEM
NOT TO SCALE
℄ OF PERSIMA ROAD
OPEN INTERMITTENT SAND FILTER
EXISTING 12" CULVERT
VEGETATION
EDGE OF ROAD
CHLORINE CONTACT BASIN
POINTER WELL 8' DEEP
EXISTING FENCE; REBUILD/REPAIR AS NEEDED
GATED ENTRY
PROPOSED MAINTENANCE/ACCESS ROAD (GRAVEL)
SURFACE DIVERSION DITCH
SPRAY DISPOSAL AREA
31 ACRES
SURFACE CONTAINMENT BERM (SEE DETAIL THIS PAGE)
POINTER WELL 5' DEEP
TOPOGRAPHY OBSCURED BY VEGETATION
EXISTING RESIDENCE
EXISTING SHOP/BARN
PROPERTY LINE
A
A'
B
Questa Engineering Corporation
Point Richmond, California
ELKUS 4H RANCH
WASTEWATER FACILITY
PLAN
Figure
3

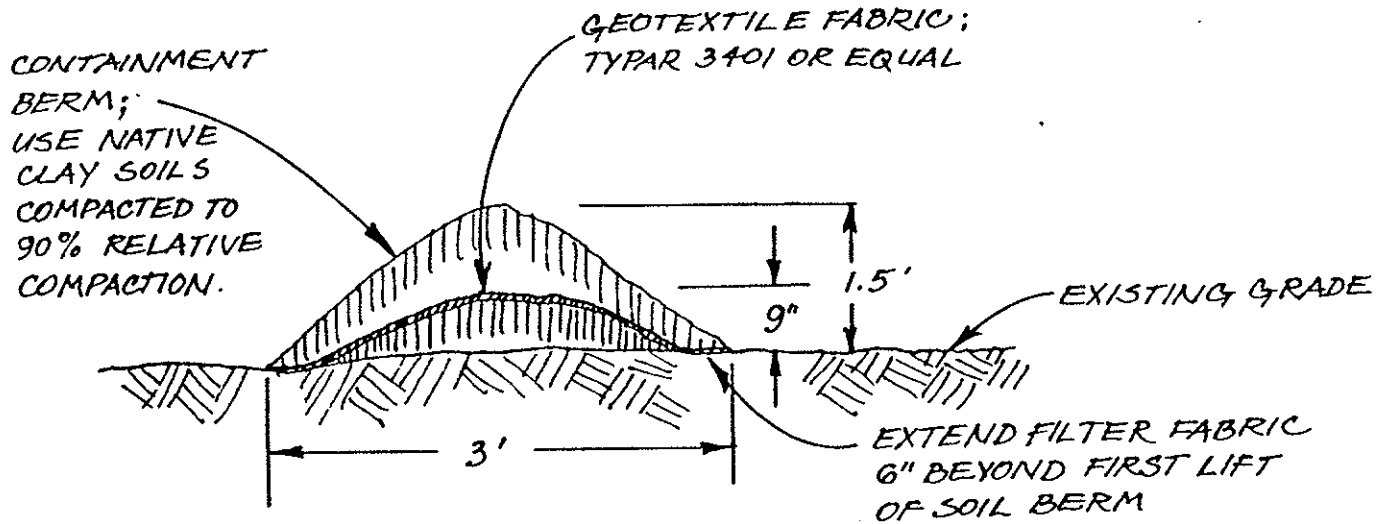


NOTE: RECIRCULATION TANK & SAND FILTER NOT SHOWN.

POND BOTTOM DIMENSION: 110' X 220'

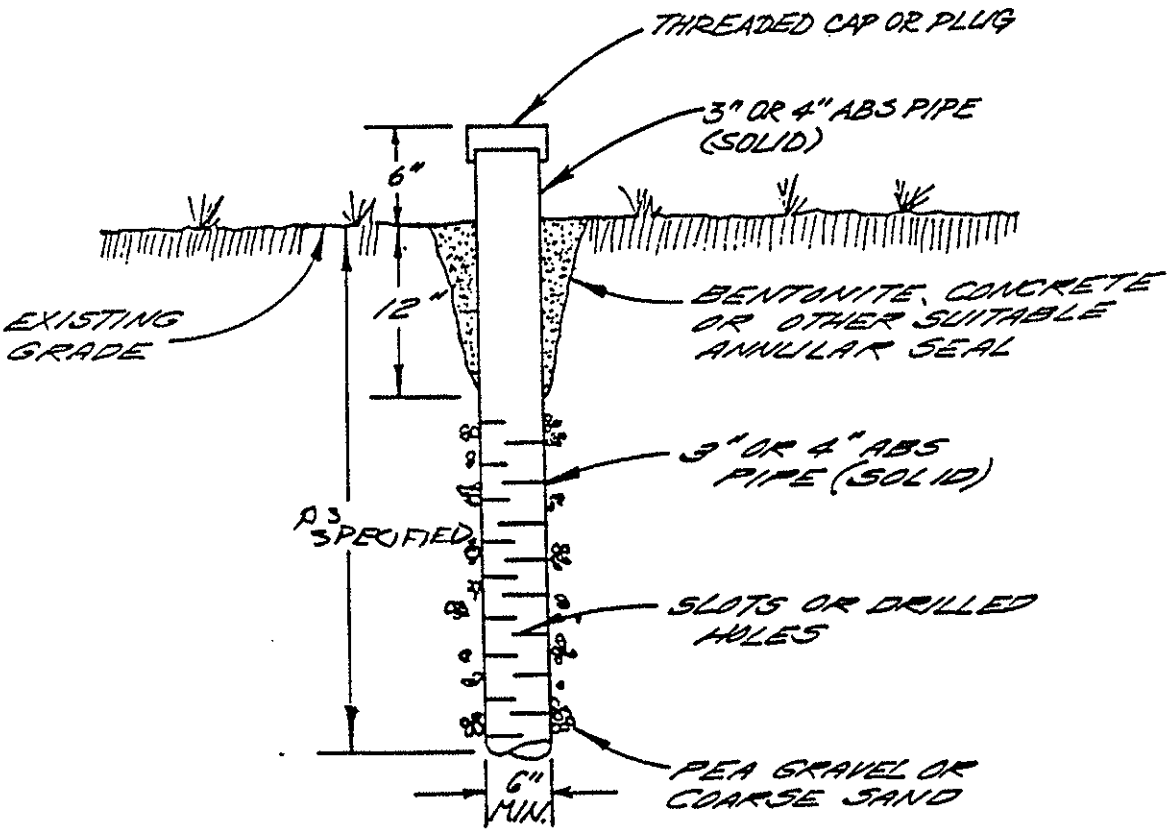
NOT TO SCALE

Questa Engineering Corporation Point Richmond, California	ELKUS 4H RANCH CROSS-SECTION HOLDING POND	Figure 4



NOT TO SCALE

Questa Engineering Corporation Point Richmond, California	ELKUS 4H RANCH SURFACE CONTAINMENT BERM	Figure 5



MONITORING WELL DETAIL

Figure 6